DEVOR, Harold T. et al.

10/721,879

Attorney Docket No.: P-6216-US Assignee:

Intel Corporation

The following listing of claims replaces all prior versions and listings of claims in

Amendments to the Claims:

the application:

1. (Currently Amended) A method comprising:

during translation of a code block from a first format suitable for a first computing

platform to a second format suitable for a second computing platform, detecting

misaligned data access resulting from execution of [[a]] said code block translated

from a first format suitable for a first computing platform to a second format

suitable for a second computing platform; and

modifying said code block according to said misaligned data access.

2. (Original) The method of claim 1, wherein detecting comprises performing

instrumentation of said code block to detect whether execution of said code block

results in the misaligned data access.

3. (Original) The method of claim 2, wherein detecting comprises performing

instrumentation of at least one instruction in said code block to detect a location of

an instruction whose execution results in the misaligned data access.

4. (Original) The method of claim 1, wherein detecting comprises performing

instrumentation of at least one instruction in said code block to detect a location of

an instruction whose execution results in the misaligned data access.

5. (Original) The method of claim 1, wherein modifying comprises adding to said

code block an instruction to branch an execution of said code block to a code

sequence whose execution handles the misaligned data access.

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6. (Original) The method of claim 1, wherein modifying comprises modifying said code block to handle misaligned data access in a subsequent execution of said code block.

7. (Original) The method of claim 1, further comprising translating said code block from said first format to said second format.

8. (Original) The method of claim 1, wherein detecting comprises detecting a misaligned data access resulting from an execution of a code block translated from a format suitable for a 32-bit based computing platform to a format suitable for a 64-bit based computing platform.

9. (Currently Amended) An apparatus comprising: a processor to detect, during translation of a code block from a first format suitable for a first computing platform to a second format suitable for a second computing platform, misaligned data access resulting from execution of [[a]] said code block translated from a first format suitable for a first computing platform to a second format suitable for a second computing platform, and to modify said code block according to said misaligned data access.

- 10. (Original) The apparatus of claim 9, wherein the processor is able to perform instrumentation of said code block to detect whether execution of said code block results in the misaligned data access.
- 11. (Original) The apparatus of claim 10, wherein the processor is able to perform instrumentation of at least one instruction in said code block to detect a location of an instruction whose execution results in the misaligned data access.

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12. (Original) The apparatus of claim 9, wherein the processor is able to perform

instrumentation of at least one instruction in said code block to detect a location of

an instruction whose execution results in the misaligned data access.

13. (Original) The apparatus of claim 9, wherein the processor is able to add to said

code block an instruction to branch an execution of said code block to a code

sequence whose execution handles the misaligned data access.

14. (Original) The apparatus of claim 9, wherein the processor is able to modify said

code block to handle misaligned data access in a subsequent execution of said code

block.

15. (Currently Amended) The apparatus of claim 9, wherein the processor is able to,

before detecting the misaligned data access, translate said code block from said first

format to said second format format.

16. (Original) The apparatus of claim 9, wherein the first computing platform is a 32-

bit based computing platform and the second computer architecture is a 64-bit

based computing platform.

17. (Currently Amended) A computing platform comprising:

a processor to detect, during translation of a code block from a first format suitable

for a first computing platform to a second format suitable for a second computing

platform, misaligned data access resulting from execution of [[a]] said code block

translated from a first format-suitable for a first computing-platform to a second

format suitable for a second computing platform, and to modify said code block

according to said misaligned data access; and

a dynamic random access memory operably associated with said processor to store

at least a portion of said code block.

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18. (Original) The apparatus of claim 17, wherein the processor is able to perform instrumentation of said code block to detect whether execution of said code block results in the misaligned data access.

- 19. (Original) The apparatus of claim 18, wherein the processor is able to perform instrumentation of at least one instruction in said code block to detect a location of an instruction whose execution results in the misaligned data access.
- 20. (Original) The apparatus of claim 17, wherein the processor is able to perform instrumentation of at least one instruction in said code block to detect a location of an instruction whose execution results in the misaligned data access.
- 21. (Currently Amended) A machine-readable medium having stored thereon a set of instructions that, if executed by a machine, cause the machine to perform a method comprising: during translation of a code block from a first format suitable for a first computing platform to a second format suitable for a second computing platform, detecting misaligned data access resulting from execution of [[a]] said code block translated from a first format suitable for a first computing platform to a second format

modifying said code block according to said misaligned data access.

suitable for a second computing platform; and

22. (Original) The machine-readable medium of claim 21, wherein the instructions that result in detecting result in performing instrumentation of said code block to detect whether execution of said code block results in the misaligned data access.

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23. (Original) The machine-readable medium of claim 22, wherein the instructions that result in detecting result in performing instrumentation of at least one instruction in said code block to detect a location of an instruction whose execution results in the misaligned data access.

- 24. (Original) The machine-readable medium of claim 21, wherein the instructions that result in detecting result in performing instrumentation of at least one instruction in said code block to detect a location of an instruction whose execution results in the misaligned data access.
- 25. (Original) The machine-readable medium of claim 21, wherein the instructions comprise at least part of a translator.
- 26. (Original) The machine-readable medium of claim 21, wherein the instructions comprise at least part of an execution layer.
- 27. (Original) The machine-readable medium of claim 21, wherein the instructions comprise at least part of an operating system.
- 28. (Original) The machine-readable medium of claim 21, wherein the instructions comprise at least part of a compiler.